

Notice of Allowability

Application No.

09/915,204

Examiner

DANIEL G. MARIAM

Applicant(s)

DIALAMEH ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to an amendment filed 11/25/05 & a telephone interview dated 2/1/06.
2. ☒ The allowed claim(s) is/are 1-10 & 14-19 (will be renumbered as 1-16).
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date 2/1/2006.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


DANIEL MIRIAM
PRIMARY EXAMINER

EXAMINER'S AMENDMENT AND REASONS FOR ALLOWANCE

Examiner's Amendment

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Robroy Fawcett (Reg. No. 35,133) on February 1, 2006.

The application has been amended as follows:

Cancel claims 11-13.

Amend claim 1 as follows:

At line 4, after the limitation "matching" insert ", wherein the feature is an eye of a person's face" –

Amend claim 2 as follows:

At line 5, after the limitation "images" insert ", wherein the feature is an eye of a person's face" –

Amend claim 4 as follows:

At line 5, after the limitation "images" insert ", wherein the feature is an eye of a person's face" –

Amend claim 6 as follows:

At line 6, after the limitation "image" insert ", wherein the feature is an eye of a person's face" –

Amend claim 8 as follows:

At line 4, after the limitation “matching” insert “, wherein the feature is an eye of a person’s face” –

Amend claim 9 as follows:

At line 6, after the limitation “image” insert “, wherein the feature is an eye of a person’s face” –

Amend the specification as follows:

In page 1, paragraph 0001, line 6, after “09/206,195” insert “(which is now US Patent Number 6,301,370 issued on October 9, 2001)” - -

In page 1, paragraph 0001, line 8, after “09/206,195” insert “(which is now US Patent Number 6,301,370 issued on October 9, 2001)” - -

In page 4, paragraph 00016, line 9, after “09/206,195” insert “(which is now US Patent Number 6,301,370 issued on October 9, 2001)” - -

Reasons for Allowance

2. Claims 1-10 and 14-19 are allowed. The claims will be renumbered as 1-16.
3. The following is an examiner’s statement of reasons for allowance: the instant invention discloses an eye tracking technique that determines the location of a person’s eyes in three-dimensional space. None of the prior art of record including (McDowell and Eriksson) rely upon: 1) the use of a bunch graph matching for locating the feature in the left camera image and in the right camera image, wherein the feature is an eye of a person’s face, and determine the feature location in multiple dimensions including depth based on the feature locations in the left

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camera image and the right camera image; 2) locating the feature in the left camera image and in the right camera image using image analysis based on wavelet component values generated from wavelet transformations of the camera images, wherein the feature is an eye of a person's face, and determine the feature location in multiple dimensions including depth based on the feature locations in the left camera image and the right camera image; and 3) locating the left eye and the right eye in the left camera image using image analysis based on wavelet component values generated from wavelet transformations of the left camera image, and locating the left eye and the right eye in the right camera image using image analysis based on wavelet component values generated from wavelet transformations of the right camera image, and determining the feature locations of the left eye and the right eye in three dimensions based on the left and right eye locations in the left camera image and the left and right eye locations in the right camera image. These elements and in combination with all the other elements of the claims are not disclosed and fairly suggested by any of the prior art of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL G. MARIAM whose telephone number is 571-272-7394. The examiner can normally be reached on M-F (7:00-4:30) FIRST FRIDAY OFF.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, BHAVESH M. MEHTA can be reached on 571-272-7453. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


DANIEL G. MARIAM
Primary Examiner
Art Unit 2625

February 2, 2006